

Practical questions

1. Compute the value of goodwill on the basis of 4 years purchase of the average profit of the last five years. The profits for the last five years were as follows: ₹ 40,000, ₹ 50,000, ₹ 60,000, ₹ 50,000 and ₹ 60,000

Sol	years	Profit	
	1	40,000	52,000
	2	50,000	2,60,000 = 52,000 Avg profit
	3	60,000	5
	4	50,000	Goodwill = 52,000 x 4
	5	60,000	= 2,08,000 Ans.
		2,60,000	

2. Calculate the amount of goodwill in the following case of three years purchase of the last five years average profit. The profits and loss of the last five years were:
 I year ₹ 2000, II year ₹ 1,500, III year ₹ 300 (loss), IV year ₹ 3000
 V year ₹ 3800

Sol	years	Profit/Loss	
	1	2000	Avg: Profit 2000
	2	1500	10,000 = 2000
	3	300 (loss)	5
	4	3000	Goodwill = 2000 x 3
	5	3800	= 6000 Ans.
		10,000	

3. The profits of the firm for the last five years were as follows

Year	Profit
2010 - 11	20,000
2011 - 12	24,000
2012 - 13	30,000
2013 - 14	25,000
2014 - 15	19,000

Calculate the value of goodwill on the basis of three years purchase of average profits

Sol - ~~Total~~ Total profit = 1,17,000

$$\text{Avg. profit} = \frac{234000}{5} = 23400$$

$$\begin{aligned} \text{Goodwill} &= 23400 \times 3 \\ &= \underline{\underline{70,200 \text{ Rs.}}} \end{aligned}$$

4. A and B are partners in a firm. They admit C into the firm. The goodwill for the purpose is to be calculated a two years purchase of the average profits of the last three years. Profits of the last three years were ₹ 10,000, ₹ 15,000 and ₹ 30,000 respectively. Second year's profit included an sale of a machinery ₹ 10,000. Find the value of goodwill of the firm on C's admission.

Sol

1 st year	10,000	Avg. prft. $\frac{45,000}{3} = 15,000$
2 nd year	15,000 = 10,000	
3 rd year	30,000	
	45,000	
		15,000 x 2 = 30,000 Ans.

5. The profit of a firm for the last three years were:

2013: ₹ 40,000 (including an abnormal gain ₹ 5,000)
 2014: ₹ 50,000 (after charging an abnormal loss of ₹ 10,000)
 2015: ₹ 45,000 (excluding ₹ 5,000 as insurance premium on firm's property now to be insured).

Calculate the value of firm's goodwill on the basis of 2 years purchase of the average profits for the three years.

Sol

2013	40,000 - 5,000	35,000	$\frac{1,35,000}{3} = 45,000$
2014	50,000 + 10,000	60,000	
2015	45,000 - 5,000	40,000	
		1,35,000	

$$\text{Goodwill} = 45,000 \times 2$$

$$= 90,000 \text{ Rs.}$$

6. The profits and losses for last five years were:

- 1st year: ₹ 6,000 (including an abnormal gain of ₹ 2,000)
 2nd year: ₹ 14,000 (excluding ₹ 4,000 ab. insurance premium)
 3rd year: ₹ 4,000 (after charging an abnormal loss of ₹ 2,000)
 4th year: ₹ 2,000 (loss)
 5th year: ₹ 16,000

Calculate the amount of goodwill on the basis of 4 years purchase of last 5 years profits and losses.

Sol

1 st year	6000 - 2000	4000
2 nd year	14000 - 4000	10000
3 rd year	4000 + 2000	6000
4 th year	2000 loss	
5 th year	16000	
	<u>34000</u>	

$$\text{Avg profit} = \frac{34000}{5} = 6800$$

$$\text{Goodwill} = 6800 \times 4 = \cancel{27200} \underline{27200} \text{ Rs}$$

7. X and Y are partners sharing profits and losses in the ratio of 3:2. They agree to take into partnership for Z $1/3$ rd share. For this purpose, goodwill is to be valued at two years purchase of the average profit of last 4 years which were as follows.

year ending on 31 st March 2013	1,50,000 (Profit)
" " 2014	1,20,000 (Profit)
" " 2015	1,80,000 (Profit)
" " 2016	1,70,000 (Loss)

on 1st April 2015 a motor bike costing ₹ 50,000 was purchased and debited to travelling expenses account, on which depreciation is to be charged @ 20% p.a. Calculate the value of goodwill.

Sol

~~Actual~~ Actual less depreciation

Actual Loss	1,70,000	1,70,000
	50,000	10,000
	<u>1,20,000</u>	<u>1,60,000</u>

Cost of bike 50,000 less from loss

Value of depreciation 10,000 added to actual loss

2013	1,50,000	Avg. $\frac{3,70,000}{4} = 92,500$
2014	1,20,000	
2015	1,80,000	
2016	1,30,000	
	<u>3,70,000</u>	Goodwill = $92,500 \times 2$
		<u>1,85,000</u>

8. The profits of the firm for the last five years were as follows:

year	Profit
2010-11	20,000
2011-12	24,000
2012-13	30,000
2013-14	25,000
2014-15	18,000

Calculate the value of goodwill on the basis of three years purchase of weighted average profits based on weights 1, 2, 3, 4, 5 respectively to the profits 2010-11, 2011-12, 2012-13, 2013-14, 2014-15.

Sol.

years	Profits	Weight	Product
2010-11	20,000	1	20,000
2011-12	24,000	2	48,000
2012-13	30,000	3	90,000
2013-14	25,000	4	100,000
2014-15	18,000	5	90,000
		15	3,48,000

$$\text{Weighted Avg.} = \frac{3,48,000}{15} = 23,200$$

$$\text{Goodwill} = 23,200 \times 3 = \underline{\underline{69,600 \text{ Rs}}}$$

9. A A firm has a Capital of ₹ 90,000. The normal profit is estimated at 10%. If the actual profit of the firm is 13,000. Calculate the value of goodwill on the basis of three years purchase of super profit.

Sol

$$\text{Normal profit} = \frac{\text{Capital employed} \times \text{normal rate of return}}{100}$$

$$= \frac{90,000 \times 10}{100} = 9,000$$

$$\begin{aligned}\text{Super profit} &= \text{Actual average profit} - \text{normal profit} \\ &= 13,000 - 9,000 \\ &= \underline{4,000 \text{ Rs.}}\end{aligned}$$

$$\begin{aligned}\text{Goodwill} &= \text{Super profit} \times \text{no. of years Purchase} \\ &= 4,000 \times 3 \\ &= \underline{12,000 \text{ Rs.}}\end{aligned}$$

9.8 A firm has earned profits of ₹ 20,000, ₹ 6000, ₹ 12,000 and ₹ 8000 respectively in the last four years. The Capital invested in the firm is ₹ 50,000. The rate of return expected from capital invested is 15% p.a. Calculate the value of goodwill on the basis of 3 years Purchase of Super profit

Sol. Normal profit = $\frac{\text{Capital employed} \times \text{rate of return}}{100}$

$$= \frac{50,000 \times 15}{100} = 7500$$

$$\text{Actual Avg profit} = \frac{\text{Total profit}}{\text{No. of years}} = \frac{46,000}{4} = 11,500$$

$$\begin{aligned} \text{Super profit} &= \text{Actual avg. profit} - \text{normal profit} \\ &= 11,500 - 7500 \\ &= \underline{\underline{4000}} \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \text{Super profit} \times \text{No. of years purchase} \\ &= 4000 \times 3 \\ &= \underline{\underline{12,000}} \end{aligned}$$

10. A partnership firm earned net profit during the last five years as follows

1 st year	₹ 40,000	4 th year	₹ 70,000
2 nd year	₹ 50,000	5 th year	₹ 85,000
3 rd year	₹ 55,000		

The Capital investment of the firm is ₹ 5,00,000. A fair return on the capital having regard to the risk involved is 10%. Calculate the value of goodwill on the basis of 3 years purchase of average super profit earned during the above mentioned period.

Sol

$$\text{Normal profit} = \frac{\text{Capital employed} \times \text{rate of return}}{100}$$

$$= \frac{5,00,000 \times 10}{100} = \underline{\underline{50,000}}$$

$$\text{Actual avg. profit} = \frac{\text{Total profit}}{\text{No. of years}} = \frac{6,00,000}{10} = \underline{\underline{60,000}}$$

$$\begin{aligned} \text{Super profit} &= \text{Actual avg. profit} - \text{normal profit} \\ &= 60,000 - 50,000 \\ &= \underline{\underline{10,000}} \end{aligned}$$

$$\begin{aligned} \text{Goodwill} &= \text{Super profit} \times \text{no. of years purchase} \\ &= 10,000 \times 3 \\ &= \underline{\underline{₹ 30,000 \text{ Ans.}}} \end{aligned}$$

11. The average profits expected of a firm in future are ₹ 1,36,000 per year and capital invested in the business by the firm is ₹ 7,00,000. The rate of interest expected from capital invested in this class of business is 12%. The remuneration of the partners is estimated to be ₹ 16,000 for the year. Calculate the value of goodwill on the basis of two years purchase of super profit.

Sol Normal profit = $\frac{\text{Capital employed} \times \text{rate of return}}{100}$

$$\frac{7,00,000 \times 12}{100} = 84,000$$

$$\begin{aligned}\text{Actual profit} &= 1,36,000 - 16,000 \\ &= 1,20,000\end{aligned}$$

$$\begin{aligned}\text{Super profit} &= \text{Actual profit} - \text{normal profit} \\ &= 1,20,000 - 84,000 \\ &= \underline{36,000}\end{aligned}$$

$$\begin{aligned}\text{Goodwill} &= \text{Super profit} \times \text{no. of years purchase} \\ &= 36,000 \times 2 \\ &= \underline{\underline{₹ 72,000}}\end{aligned}$$

12. On April 1, 2017 an existing firm had assets of ₹ 1,50,000 including cash of ₹ 10,000. The partners Capital accounts show a balance of ₹ 1,20,000 and reserves constituted the rest. If the normal rate of return is 20% and the goodwill of the firm is valued at ₹ 48,000 at 4 years purchase of super profits, find the average profits of the firm.

Sol:

$$\text{Goodwill} = \text{Super profit} \times \text{no. of years purchase}$$

$$48000 = \text{Super profit} \times 4$$

$$\text{Super profit} = \frac{48000}{4}$$

$$= \underline{\underline{12000}}$$

$$\text{Normal profit} = \frac{\text{Capital employed} \times \text{rate of return}}{100}$$

$$= \frac{1,50,000 \times 20}{100} = 30,000$$

$$\text{Super profit} = \text{Actual avg profit} - \text{normal profit}$$

$$12000 = \text{Actual avg profit} - 30,000$$

$$\text{Actual avg. profit} = 30,000 + 12,000$$

$$= \underline{\underline{42,000 \text{ Rs.}}}$$